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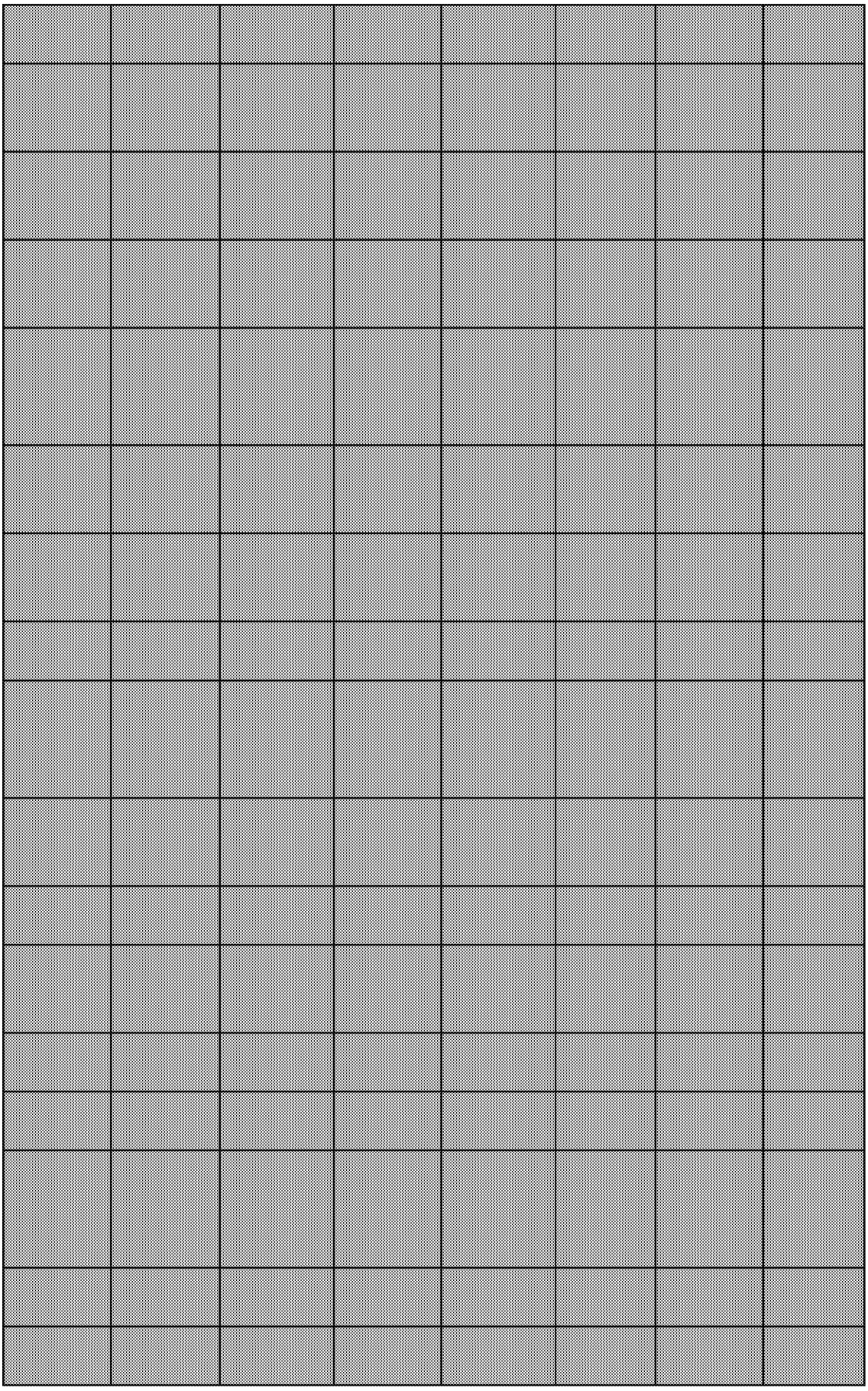

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Reactive oxygen species (ROS) from a variety of sources are often encountered by invading plant pathogens during the in
The cytotoxic effects of reactive oxygen species are largely mediated by iron. Hydrogen peroxide reacts with iron to form
Pseudomonas chlororaphis GP72 is an important plant growth-promoting rhizobacteria (PGPR) with a wide-spectrum ant
Extracts of E. coli contain at least three easily separable NAD(P)H:paraquat diaphorases. One of these is identified as thio
We report the first example of a gene, hmp, encoding a soluble flavohemoglobin in Escherichia coli K-12, which is up-regu
Streptococcus mutans, a key etiological agent of human dental caries, lives almost exclusively on the tooth surface in pla
Thioredoxin-like proteins of the TlpA/ResE/CcmG subfamily are known to face the periplasm in gram-negative bacteria. U
High coverage, whole genome shotgun (WGS) sequencing of 57 geographically- and genetically-diverse isolates of Strept
A method to grow the halophilic archaeon Haloferax volcanii in microtiter plates has been optimized and now allows the
The lipid peroxidation product 4-hydroxynon-2-enal (4-HNE) is a strong electrophile that forms covalent adducts with pro
Expression of plant metallothionein genes has been reported in a variety of senescing tissues, such as leaves and stems, r
Insertional mutagenesis was used in Chlamydomonas reinhardtii to isolate original mutants hypersensitive to multiple dr
The facultative intracellular oyster parasite, Perkinsus marinus, taxonomically related to both dinoflagellates and apicom
Streptococcus pneumoniae resides in the oxygen-rich environment of the upper respiratory tract, and therefore the abili
Staphylococcus aureus reacts to changing environmental conditions such as heat, pH, and chemicals through global regul
Polyamines, ubiquitous polycationic compounds, are involved in many cellular responses and relieve paraquat-induced c
Escherichia coli polynucleotide phosphorylase (PNPase) primarily functions in RNA degradation. It is an exoribonuclease
The soxRS regulon is a cornerstone of the adaptive defense systems of Escherichia coli against oxidative stress. Unexpect

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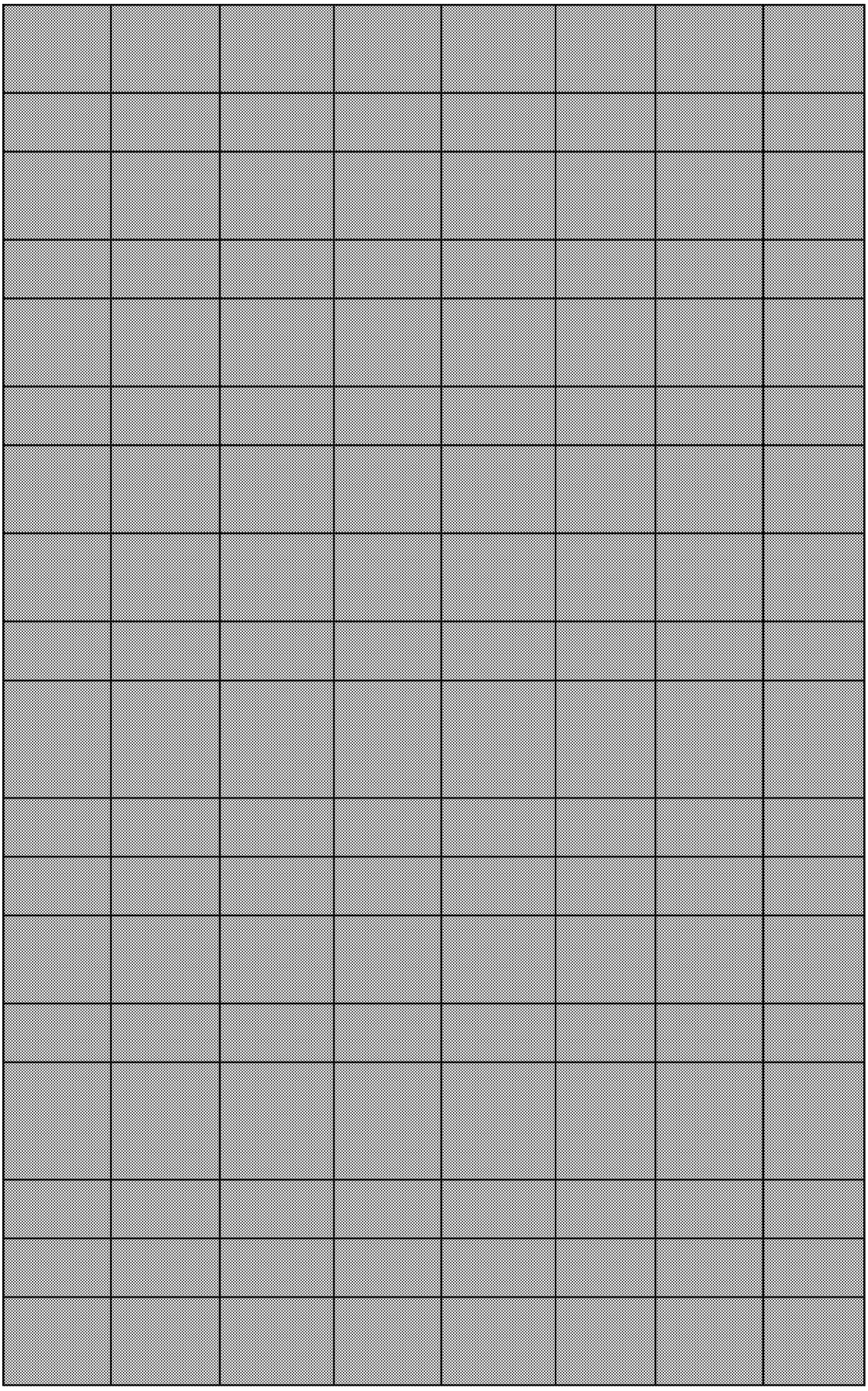

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Oxidative stress exerted by superoxide-generating (redox-cycling) agents such as paraquat triggers the soxRS regulon of
Despite the paraquat-resistant mutants that have been reported in plants, this study identified a novel A. thaliana mutan
Inducible defenses against oxidative stress are coordinated by redox-sensitive transcription factors that transduce oxidat
Higher plants express genes encoding peroxiredoxins of the two-cysteine type. This is concluded from the isolation of cD
Nitric oxide (NO) has gained interest as a major signaling molecule during plant development and in response to environ
The iron superoxide dismutase (FeSOD) gene of Escherichia coli was cloned in Saccharomyces cerevisiae cells deficient in
1. Incubation of Escherichia coli with 0.7 mM doxorubicin in MBS-glucose medium resulted in complete growth inhibitior
Glutathione (GSH) serves as the prime thiol in most organisms as its depletion increases antibiotic and metal toxicity, imp
Candida albicans contains copper- and zinc-containing superoxide dismutase but also two manganese-containing supero
In this paper we have defined proteome signatures of Bacillus subtilis in response to heat, salt, peroxide, and superoxide
3DLC protein- and peptide-fractionation technique combined with iTRAQ-peptide labeling and Orbitrap mass spectromet
The high resolution 2-D protein gel electrophoresis technique combined with MALDI-TOF MS and a recently developed fl
Disentanglement of functional complexity associated with plant mitogen-activated protein kinase (MAPK) signaling has b
FerB is a cytoplasmic flavoprotein from the soil bacterium Paracoccus denitrificans with a putative role in defense agains
Pseudomonas aeruginosa is a ubiquitous pathogen most typically associated with wound infections, but also the main ca
Derivatives with insertional inactivation of prqA and mvrA genes were obtained and studied in the Synechocystis sp. PCC

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